



104(b)(3) Macro Algal Bloom Grant

CWA Section 104(b)(3) provides funding for projects that accomplish storm water control, sludge management, and pretreatment. Currently PRC utilizes these funds in administering 5 contracts with demonstration sites, training, and surveys incorporated into efforts to control storm water.

The majority of funds have been targeted for the West Maui Watershed. West Maui identified the abundance of macro algae, in its Watershed Owners Manual, to be a species that "grows like a weed" and is difficult to control. Algal blooms in West Maui involve three types of macroalgae: *Cladophora*, *Hypnea*, and *Ulva*. Elevated concentrations of dissolved nitrogen and phosphorus in the narrow band of nearshore water where macro algae thrives is attributed to groundwater seeps which carry fertilizer leachate from large-scale agriculture, cesspools, and septic systems. With funding provided to contractors on Maui, PRC works to reduce nutrient input to the ocean from the watershed, and help improve the quality of West Maui's coastal waters for recreational use and aesthetic purposes.

Pollution Prevention (P2) Assistance Program

Contractor: University of Hawaii at Manoa, Social Science Research

Project Period: September 1999 through September 2001

Federal Funds: \$70,957

Matching Funds: \$70,957

% of Project Completed: 90%

% of Funds Remaining: 20%

Project Purpose/Goal: To promote the use of best management practices by hotels, condominiums, and golf courses on Maui to reduce nutrient inputs that result in macro algal bloom events.

Status: Project is complete, except for one last deliverable. The contractor is required to submit for our review and approval a BMP manual for landscaping. The contractor has already submitted the BMP self assessment manual for hotels, condominiums, and golf courses.

Maui County Watershed Coordinator Project

Contractor: County of Maui, Department of Public Works

Project Period: August 1998 through December 2001

Federal Funds: \$ 150,000

Matching Funds: \$ 150,000

% of Project Completed: 100

% of Funds Remaining: 46

Project Purpose/Goal: To procure the services of a part-time watershed coordinator to facilitate incorporation of watershed management practices identified in the West Maui Watershed Management Project into the County of Maui's standard operating procedures.

Status: The contract will be terminated on October 30, 2001. Required final documents, manuals, quarterly status reports, and final expenditure reports have not yet been submitted. Final payment will not be processed until these deliverables are received.

West Maui Conservation Project

Contractor: West Maui Soil & Water Conservation District

Project Period: May 2001 through May 2002

Federal Funds: \$47,000

Matching Funds: \$47,000

% of Project Completed: 0

% of Funds Remaining: 100%

Project Purpose/Goal: To implement Best Management Practices on Maui Pineapple Company land in West Maui to help prevent the further degradation of West Maui near coastal waters.

Status: Due to the Company's peak season and labor shortage, there has been no progress made on this project to date.

Ala Wai Canal Watershed Improvement Projects

The program has been responsible for the oversight of sixteen (16) subwatershed projects in the Ala Wai Watershed. Fourteen (14) projects have been completed. The majority of success among the projects is in educating the community at large. Through stream clean ups, school projects, and restoration work, commitment and involvement of residents of the subwatersheds have increased. People acknowledge the polluted runoff problems in the watershed, consider solutions and options, and in some cases take responsibility for controlling and reducing nonpoint source pollution in the Ala Wai Watershed. The sixteen (16) subwatershed projects are listed below:

- Youth for Environmental Services' (YES) Educational Outreach and Project Coordination
- Demonstration Taro Loi at Manoa School
- Waa Aina Restoration Project
- The Palolo Community Projects and Taro Loi
- Kanaha Stream Restoration
- Streambank Restoration by Kaimuki High School
- Manoa Streambank Restoration Project
- Tantalus Dumping Mitigation
- Kaneloa Wetlands Restoration in Kapiolani Park (*On-going*)
- McKinley High School Water Quality Training and Testing
- Hawaiian Plant Garden and Curriculum at Kuhio School
- Waikiki Storm Drain Filter Installation
- Community Research Park on Waahila Ridge
- Magic Island Planting
- Ala Moana Storm Drain Filter Installation
- School Water Quality Monitoring Program (*On-going*)



The project coordinated with the City & County of Honolulu Bulky Item Pick-up program.



Participants at clean up events for the Tantalus Dumping Mitigation Project.



Poles were installed to deter people from backing their trucks up to dump trash over the edge of the lookout.